*Patients:* From July 2007 to March 2009, a consecutive series of eight patients with periprosthetic femoral fractures were treated with a Locking Compression Plate (LCP); three total hip replacements (THR) and five total knee replacements (TKR).

*Outcome measure:*

1- Clinical: time to full weight bearing, return to preoperative, hip and knee range of movements: This is difficult, as it was not always recorded, and incidence of complications: infection, non-union and failure of metal work.
2- Radiological: Union and Mal-union

*Results*: All fractures united, and all patients were able to fully weight bear. No incidence of metal work failure. There was one case of MRSA infection in a patient who was a previous carrier and was not given appropriate prophylaxis.

*Conclusion:* Locking femoral plate is an alternative satisfactory method for treating periprosthetic femoral fractures. It avoids the need for revision surgery in types B and C periprosthetic fractures with a well fixed implant, particularly in the elderly group who have a higher morbidity and mortality risk from such a major operation.

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**Sub-speciality orthopaedic surgeons: Another potential factor delaying hip fracture surgery**

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Hip fractures are associated with significant morbidity and mortality, however effective medical and social input can improve outcome. Early surgical intervention, that within 48 h or ideally 24 h plays a significant role. Such targets must be managed within modern working NHS practice. Currently such cases are performed during fixed Trauma sessions. However, there is increasing sub-specialization within orthopaedics. Trauma involving the upper limb can often be delayed for the attention of the subspecialty surgeon during their trauma sessions. Within our unit Wednesday trauma sessions are supervised by an upper limb consultant and on alternate Tuesdays. We therefore assessed whether days of upper limb specific trauma sessions affected the delivery of care to hip fracture patients.

Data for this Trauma unit was obtained from the National Hip Fracture Database for a 12-month period from which 216 patients with complete data were included. Of the 216 patients 68(31.5%) were medically unfit for surgery, 67 (31%) were delayed to surgery and 81 (37.5%) were operated upon within 24 h. The mean delay to surgery for those admitted on a Tuesday was 69.7 (range 22–174) hours compared to 27.1 h (range 29–65) on Thursday the most efficient day of the week with equal number of trauma sessions. This was statistically significant using Kruskal–Wallis's H(6) 11.33, $p < 0.017$ for assessing the effects from Monday to Friday. Of those delayed for surgery 50% of the patients were likely to be operated upon within the next 24 h except for Friday where 83% were operated upon.

To meet current guidance a similar assessment may be required in other trauma units, and as a consequence of this study we have created a hip fracture trauma list on the Wednesday to address this patient need.

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The Foley catheter is described in the emergency treatment of penetrating cardiac injuries. It can be used to control bleeding from wounds in extremities, where bleeding vessels have retracted or simple pressure is unsuccessful at obtaining control due to the vessel depth.

Insert the catheter tip into the wound and inflate the balloon as appropriate to the wound size. If necessary it can be slightly over-inflated. Spigot or clamp the catheter and re-apply direct pressure to the wound and balloon. The pressure is transmitted within the wound providing temporary haemostatic control en route to the operating theatre.

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**Complex proximal humeral fracture should these be fixed?**

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We retrospectively reviewed the results of 13 proximal humeral and mid shaft humeral fractures which went to delayed union/non-union by 3–6 months.

Patient underwent computed tomography (CT) scans to confirm non-union or assess the fracture pattern. CT scan indicated union in 4 patients where X-rays were not decisive. CT scans and radiographs were compared in the demonstration of fracture lines, displacement of fracture fragments, rotation of fragments relative to their normal positions, and status of the head and articular surface of the humerus.

The impact of CT findings on the decision to treat with surgery versus closed reduction and on the choice of surgical procedure was assessed. Surgery was not performed in 4 patients because CT scans showed no significant displacement of fragments previously judged displaced or "indeterminate" on radiographs.

Surgery was performed in nine patients; CT demonstrated significant abnormalities not definitely shown with radiography. In six of these eight patients, long philos plate was used. Two of the patients required Polaris Nail to treat the fracture. There were 3 cases of radial nerve palsy that recovered at 6–12 weeks post surgery.

The non-operative route was worth considering though there was long healing time of 6–12 months. All patients who underwent fixation would have preferred the early surgical fixation of fracture due to long morbidity associated with non-operative treatment.

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**Operative treatment of closed fractures of clavicle in children**

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*Background*: Fractures of the clavicle are common in both adults and children. Recent studies in the treatment of adult fractures have indicated that improved outcomes are achieved after open reduction and internal fixation. The aim of this study was to analyze outcomes after open reduction and internal fixation of displaced clavicle fractures in children.

*Material and methods*: We analyzed a retrospective case series of 12 children whose displaced clavicle fractures were treated with

open reduction and internal fixation. Special attention was paid to the rate of healing, radiographic outcomes, functional outcomes, and complications.

*Results*: Twelve children with an average age of13.9 years (range 13–16 years) had their closed unilateral clavicle fractures treated with open reduction and internal fixation. All the patients were boys. The right side was affected in 5 and left in 7 patients. There were 11 mid-shaft fractures and one lateral end fracture. Patients were followed for an average of 12 months. There were no deep or superficial infections and no non-union. Eighty-seven percent (10 of 12) of children returned to unrestricted sports activities. Two patients suffered from scar sensitivity. All fractures healed and 5 orthopaedic implants were later electively removed including the hook plate used to fix the lateral end of clavicle.

*Conclusion*: In the past most of the clavicle fractures in children were treated conservatively regardless of the displacement and the location of fractures; with variable outcomes. We conclude that open reduction and internal fixation of displaced clavicle shaft fractures in children can be performed safely. It gives predictable results especially with healing periods and functional outcomes.

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### Clerking proformas for hip fracture: a necessary evil?

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*Introduction*: Hip fracture patients represent a difficult management problem in modern practice. Increasingly patients who previously would have been considered unfit are undergoing surgery. With the introduction of the European Working Time Directive (EWTD), the initial assessment and peri-operative management of these patients is the responsibility of increasingly more junior members of the orthopaedic team. In response to this, we have developed a clerking proforma that is currently in use to standardise hip fracture patient clerking.

The aim of our study is to determine the benefit to patients of using clerking proformas in surgical practice?

*Patients and methods*: The senior authors devised a "gold standard" history, examination and initial management. Accuracy and completeness of the clerking documentation in hip fracture patients over 4 discrete 10 day periods, each using a different clerking technique: proforma; no proforma; proforma following FY1 (Foundation Year 1) teaching session; no proforma following FY1 teaching session. The investigation period spanned the rotations of 2 groups of FY1 doctors. Following all data collection, results from each period were compared to the gold standard.

*Results*: There were significant improvements in the documentation of demographics, social history, medical history, system review and vital signs when using the proforma. There was no significant improvement in the documentation of mechanism of injury, diagnosis, interpretation of investigations and time to theatre when using the proforma. For both groups (proforma and no proforma) accuracy and completeness of clerking was better following the teaching sessions. However, the proforma clerkings were considerably more accurate and complete.

*Discussion*: The use of a proforma improves the accuracy of documentation. This affects clinical decision-making and potentially prevents peri-operative complications. It is also important for medico-legal purposes. This study highlights the role of continuous education and reinforcement of proforma usage.

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### Compartment syndrome of the thigh—an unusual etiology

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Compartment syndromes in the thigh are unusual and mostly traumatic in origin although there is one previously reported case of a non-traumatic compartment syndrome in a patient on enoxaparin. Early recognition and prompt decompression by fasciotomy are required to prevent limb and life threatening complications. All clinicians must maintain a high degree of suspicion and although most often bleeding associated with low molecular weight heparins is minor, occasionally it can result in a major bleed resulting in limb threatening conditions like a compartment syndrome.

We describe and discuss the management of a non-traumatic case of compartment syndrome of the thigh in a patient on anticoagulant therapy for a left ventricular assist device.

This case emphasises a new aetiology for compartment syndrome—namely low molecular weight heparin. This aetilogy is not well known in the medical literature and we also discuss the dosages of low molecular weight heparins at which the chances of spontaneous bleeding become high and therefore can lead on to complications like compartment syndrome.

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### Compliance in a mallet splint

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Mallet finger deformity is one of the commonest encountered injuries in accident and emergency and hand surgery clinics. Conservative management using a mallet splint is widely recommended and practised. The aim of our study was to analyze patient compliance with conservative management.

The treatment regime consists of 6 weeks of continuous splintage, followed by 2 weeks of splintage at night only. At 6 weeks review all the patients were referred to a hand therapist.

*Methodology*: All patients treated in our unit for mallet injury, over a 1-year period were sent a questionnaire regarding compliance using their splint. Twenty-five patients replied (response rate – 30%).

*Results*: Sixteen patients (74%) sustained injury to their dominant hand. Three patients (12%) state they were not given proper advice about the use of mallet splint. Eleven patients (44%) complained about loosening of splint and only 20% of these patients revisited orthopaedic clinic to readjust their splint. Three patients (8%) were not aware that they had to keep their finger straight during washing and bathing.

Four patients (16%) developed pressure areas on the finger, another four patients complained of painful finger and six patients (24%) were not happy with the outcome.

*Conclusion*: Our paper emphasizes that merely applying a splint for a mallet finger does not constitute treatment. Careful attention by the treating specialist, hand therapist and the patient is paramount. Written advice and patient education is important and should be given when patients are seen in accident and emergency.

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